COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

AT RICHMOND, JULY 28, 2000

APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY — CASE NO. PUE980463

To revise its cogeneration tariff pursuant to PURPA Section 210

ORDER ESTABLISHING COGENERATION TARIFF

On August 11, 1998, Virginia Electric and Power Company ("Virginia Power" or "the Company") filed with the Commission written testimony and exhibits to support its proposal to modify its cogeneration and small power production rates under Schedule 19. Specifically, the Company seeks to decrease its avoided energy and capacity payments to cogenerators, expand the effective period for this schedule through 2001, and decrease the minimum contract term that can be executed pursuant to Schedule 19. On September 30, 1998, the Commission issued an Order establishing this proceeding, appointing a Hearing Examiner, and setting a procedural schedule.

On February 24, 1999, a hearing was conducted by Chief Hearing Examiner Deborah V. Ellenberg. Counsel appearing at the hearing were: Richard D. Gary, Esquire, and Michael C. Regulinski, Esquire, for Virginia Power; Mark J. LaFratta, Esquire, on behalf of Appomatox Cogeneration Limited Partnership ("ACLP"), and M. Renae Carter, Esquire, and Don R. Mueller, Esquire, for the Commission Staff. St. Laurent Paperboard (U.S.) Inc. and Westvaco were Protestants in this case and supported the testimony of Mr. Roy J. Shanker along with ACLP. The Alexandria/Arlington Resource Recovery Corporation filed a Notice of Protest but did not file a Protest and did not participate in the hearing.

Virginia Power presented the testimony of Daniel J. Green, W.R. Eckroade, and J.E. McIntyre, Jr. These witnesses testified that the Company used the PROVIEW computer model to develop an optimal capacity expansion plan and the PROMOD computer model to determine the expected total system dispatch and energy mix to serve as a base case. In employing the Differential Revenue Requirement ("DRR") methodology to calculate its avoided costs, the Company developed two alternate cases assuming the addition of a 150 MW block of a new qualifying facility ("QF") at zero cost. One alternate case assumed the block of QF capacity operated as a baseload facility, while the other case assumed the block of QF capacity operated as a peaking facility. The difference in revenue requirements between each alternate case and the base case due to capital investments and fixed operating and maintenance expenses is classified as the avoided capacity cost, while the difference in energy mixes is the basis for avoided energy costs.

Mr. Green testified that, based on Virginia Power's 1998 resource plan, the Company needs 864 MW of peaking capacity for 2000 with additional capacity needs in 2001 and 2002. The Company plans to meet the year 2000 need by constructing four 150 MW combustion turbine units and by making other energy purchases.[1] Mr. Green testified that these planning decisions are the basis of the Company's use of a 150 MW block size for avoided capacity when conducting the "with" case PROMOD run.

Virginia Power proposed to allow qualifying facilities several options for energy payments based on firmness, time differentiation, and whether the Company could avoid energy costs during an on-peak or off-peak period. The Company also offered, to qualifying facilities delivering firm energy and capacity, a levelized avoided energy mix applicable for each year of the contract term.

Under Virginia Power's proposal, those qualifying facilities making firm deliveries are eligible to receive capacity payments beginning in 2000. The Company's proposed

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[1] Order, Application of Virginia Electric and Power Company For approval of Expenditures for New Generation Facilities pursuant to Va. Code § 56-234.3 and for a certificate of public convenience and necessity pursuant to Va. Code § 56-265.2, May 14, 1999, Case No. PUE980462, 1999 S.C.C. Ann. Rep. 431.

levelized capacity payments are based on the Company's estimated capacity prices for market purchases in 2000-2001.

Regarding the term for Schedule 19 contracts, Virginia Power proposed to limit the contract term to three years due to industry restructuring. The Company later modified this proposed term to four years, asserting that a four-year contract term would be consistent with the transition to the competitive market.

The Commission Staff presented the testimony of Jarilaos Stavrou and Thomas E. Lamm. Mr. Stavrou's testimony concerned the Company's avoided energy costs. Mr. Stavrou testified that a 100 MW avoided block size was used in the previous Schedule 19 case but that the Company used a 150 MW block size in this case, even though no combustion turbine was avoided in the Company's simulation plans. Mr. Stavrou concluded that approval of the Company's new construction of combustion turbines could affect the avoided energy mix and associated avoided energy costs.

Mr. Stavrou also expressed concern that the Company did not model off-system energy sales in its forecast of avoided energy costs, as it had been ordered to do by Commission Order in the 1997-98 fuel factor.[2] Mr. Stavrou recommended that the Company perform additional simulation runs to test the sensitivity of

[2] Order Approving Application, Application of Virginia Electric and Power Company To revise its cogeneration tariff pursuant to PURPA section 210, January 21, 1998, Case No. PUE960117, 1998 S.C.C. Ann. Rep. 331.

energy costs to avoided block size, off-system sales, and the elimination of one of the combustion turbines from the expansion plan. The Company provided much of this data in rebuttal testimony, after which Mr. Stavrou testified that the Staff no longer supported including off-system sales in the avoided cost calculations in this case. Mr. Stavrou supported the energy payments proposed by the Company.

Mr. Lamm testified concerning capacity issues and contract term. He proposed to base avoided capacity costs on the estimated costs of a planned 150 MW combustion turbine unit. However, if the Commission were to decide that market purchases should be used to determine the avoidable capacity, Mr. Lamm testified that the capacity block should be reduced to 100 MW, consistent with the Commission's determination in the last Schedule 19 case. Concerning contract term, Mr. Lamm testified that if, the Commission adopts the Staff's recommendation that a combustion turbine serve as the basis for the avoided cost calculation, and in light of electric industry restructuring, then a contract of between 10 and 25 years could be justified.

St. Laurent Paper Products Corporation, Westvaco Corporation, and ACLP jointly sponsored the testimony of Roy J. Shanker. Dr. Shanker recommended that Virginia Power be required to modify the demand forecast used in Schedule 19 to be consistent with the assumptions for off-system sales used in the

Company's most recent fuel factor filing. He asserted that failing to make this adjustment would under-compensate qualifying facilities.

Virginia Power also presented the rebuttal testimony of Daniel J. Green and Jeffrey L. Jones. Generally, the Company asserted that off-system sales should not be included in the calculation of avoided costs, that the Company should not have to perform a sensitivity study based on 1 MW of avoided energy, and that Staff's recommendations regarding contract term should be rejected.

On February 11, 2000, the Chief Hearing Examiner issued her Report. Her findings were as follows:

> (1) Virginia Power should offer contracts under Schedule 19 for terms up to ten years;
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> (2) Virginia Power should use a 150 megawatt block of assumed displaced capacity in its DRR calculation;
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> (3) Avoided energy payments for 1999 as proposed by Virginia Power should be approved;
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> (4) Avoided energy payments for 2000 and 2001 should be based on avoided energy fuel mixes derived by displacing one of the Faquier County 150 MW combustion turbines approved for the summer of 2000;
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> (5) Avoided capacity payments should be based on the same displaced 150 MW CT [combustion turbine]; and
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> (6) The payments made under interim rates should be adjusted with revised payments made for power

purchased under Schedule 19 since January 1, 1999, as appropriate.

She recommended that the Commission enter an order adopting the above findings, directing Virginia Power to file a revised Schedule 19 consistent with the findings contained herein within 60 days of a final order in this case, and dismissing this case from the Commission's docket of active cases.

On or about March 3, 2000, Virginia Power and ACLP filed comments on the Chief Hearing Examiner's Report. Virginia Power's comments concerned contract term and treatment of off-system energy sales. The Company reasserted its position that contracts with qualifying facilities not be required to extend beyond December 31, 2002, because, as of January 1, 2002, the Company will no longer have the exclusive right to supply electricity within its service territory. Virginia Power further asserted that, once customer choice is implemented, the Company would bear the responsibility for the new combustion turbines. The Company agreed with the Chief Hearing Examiner's recommendation that off-system sales should not be included in the calculation of avoided energy cost but took issue with the Chief Hearing Examiner's statement that, in the future, conservative estimates of off-system sales should be factored into the calculation. The Company stated that off-system sales should be left out of any such calculation because the Public

Utility Regulatory Policies Act of 1978 ("PURPA") focuses on native load and not off-system sales, because off-system sales are made to maximize efficiency and not to meet the energy requirements of native load customers, and because half the financial benefit of off-system sales is returned to customers as a credit through Virginia Power's fuel factor. The Company also noted that modeling difficulties arise when off-system sales are factored into the DRR methodology and that these modeling difficulties cannot be corrected by reducing the level of off-system sales.

ACLP took issue with the Chief Hearing Examiner's recommendation that off-system sales not be included in the calculation of Schedule 19 avoided energy costs. ACLP asserted that rates for qualifying facilities should be based upon the actual avoided costs of Virginia Power, so the assumptions in the Schedule 19 analysis, including the load forecast the Company expects to serve, must be as close as possible to the actual anticipated operations of the Company. It would be unreasonable, according to ACLP, to include off-system purchases without also including off-system sales. ACLP noted that Virginia Power itself has included off-system sales in its fuel factor forecasts and argued that to disregard off-system sales would be to undercompensate qualifying facilities. ACLP contended that off-system sales should be recognized in the simulation of system performance and that the Chief Hearing Examiner declined to include them in this instance only because of modeling deficiencies. ACLP argued that these deficiencies could be mitigated with the economy interchange transaction module for PROMOD.

NOW UPON CONSIDERATION we find that we should adopt in part the findings and recommendations of the Chief Hearing Examiner. We agree that the DRR methodology is the proper method to use to determine avoided costs in this case. We further find that off-system sales should be excluded from the present calculation of avoided costs and that the cogeneration rate we are setting should be effective through 2001. However, we find that a contract length of less than 10 years is preferable, given the restructuring occurring throughout the industry.

In its application Virginia Power used the DRR methodology to calculate the Company's avoided costs over a five-year study period. This methodology was approved by the Commission in Case No. PUE870081.[3] By our Order of January 31, 1998, in Case No. PUE960117, we directed both the Company and Staff to consider alternative methodologies to DRR. In testimony Virginia Power stated that it considered basing avoided costs on a

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[3] Final Order, Ex Parte: In the matter of adopting appropriate methodology for use in calculating, pursuant to PURPA, the Schedule 19 avoided costs of Virginia Electric & Power Company, December 30, 1988, Case No. PUE870081, 1988 S.C.C. Ann. Rep. 301.

determination of market prices but decided that current projections of market prices for 1999-2001 were too uncertain to be the basis for an avoided cost calculation at this time. The Company therefore used the DRR methodology to determine avoided energy and capacity payments based on a 150 MW avoided block size and, for avoidable capacity, considered undesignated market purchases in the 2000 to 2002 planning horizon.

The Staff recommended that the Commission employ the methodology best fitting the circumstances present at the time of each avoided cost filing. While agreeing with the use of the DRR methodology in this case, the Staff cited the Company's intent to construct four 150 MW combustion turbines and thus proposed that avoided costs for energy and capacity be calculated by factoring into the DRR methodology the displacement of one of these units.

We agree with the Staff that DRR is the appropriate methodology to use in this case and that both avoided energy and capacity payments should reflect the displacement of one of the combustion turbine units. The Company has sought and been granted certificates of public convenience and necessity to construct four new 150 MW combustion turbines, and we find that 150 MW is an appropriate avoided block size to use when conducting the "with" and "without" cases required by the DRR methodology. While the costs associated with one of the 150 MW combustion turbines were well developed as part of the approval process in that case, the costs for undesignated purchases are speculative at this time.

We also find that the Schedule 19 tariff we are establishing should be effective for a three-year period, through 2001. Though previous Schedule 19 tariffs have been available for two-year periods of time, Virginia Power proposed a three-year period because deregulation of electricity generation services will be phased in starting January 1, 2002. Neither the Staff nor any protestant objected to the three-year life of the tariff. We, too, recognize the changing landscape of the regulatory environment for generating electricity and realize that market prices may significantly impact avoided costs in the future. Therefore, we find it appropriate for the expiration of this tariff to coincide with the start of retail choice for the generation of electricity.

We agree with the Chief Hearing Examiner that off-system sales should be excluded from the present calculation of avoided costs. In testimony, the Company admitted that it prepared forecasts for this case using a mainframe PROMOD software system that did not accurately model off-system sales and purchases. Thus, the Chief Hearing Examiner is correct in stating that no portion of the record in this case accurately quantifies the impact of off-system sales.

The Chief Hearing Examiner also found that, absent such modeling deficiencies, a conservative estimate of off-system sales should be included at some level in the calculation of avoided costs if they are reflected in the fuel factor. We disagree with this assessment. Virginia Power's fuel factor includes a calculation for projected off-system sales. However, unlike the setting of avoided costs for purposes of Schedule 19, the fuel factor also contains a mechanism by which inaccurate forecasts used to set the previous fuel factor may be corrected. Such a true-up mechanism does not exist for purposes of setting the Schedule 19 avoided cost rate. Thus, any inaccuracy in the prediction of off-system sales could act as a windfall to cogenerators at the expense of ratepayers, contrary to the intent of PURPA.[4]

Additionally, in the present evolving world of industry restructuring, the off-system sales market has grown exponentially in recent years. Off-system sales are now made more often and are more unpredictable in frequency and price than in previous years. Thus, it would be nearly impossible to develop a conservative estimate of off-system sales, as the Chief Hearing Examiner would recommend absent the modeling

[4] "[I]n requiring any electric utility to offer to purchase electric energy from any qualifying cogeneration facility or qualifying small power production facility, the rates for such purchase--(1) shall be just and reasonable to the electric consumers of the electric utility and in the public interest. 16 U.S.C. § 824a-3(b).

deficiencies present in this case. In short, the Company could not develop any reasonably accurate forecast or conservative estimate of off-system sales that could be used in the avoided cost calculation.

We recognize that off-system sales are becoming an increasingly significant factor for Virginia Power and other utilities. In the future, it may be possible to include them by using a market-based methodology to better account for the frequency, consistency, timing, and the price at which off-system sales are made. Indeed, new cogenerators now have the option of selling directly into the wholesale energy market and thereby capturing the benefits of off-system sales, as well as other marketplace benefits and risks, if cogenerators believe that such action would be more profitable than making routine sales to Virginia Power at Commission-approved prices. For all of these reasons, for purposes of this case in which the DRR methodology is used, we decline to include off-system sales in the calculation of avoided costs.

Finally, though the Chief Hearing Examiner recommended a contract length of up to 10 years, we find that a contract length of up to four years, through 2002, is appropriate. Once Virginia Power's customers begin selecting alternative providers for generation services on January 1, 2002, Virginia Power's demand will change. While the Company will continue to have an obligation to serve customers who do not select an alternative provider and while the Company will still have an obligation to purchase generation from qualifying cogeneration facilities, the Company will not be able to accurately predict its demand on a long-term basis. Contracts of shorter term will provide the Company the flexibility it may need to renegotiate the terms for the purchase of generation services from qualifying congenerators.

Accordingly, IT IS ORDERED THAT:

(1) The Findings and Recommendations of the February 11, 2000, Chief Hearing Examiner's Report, as modified and supplemented herein, are hereby adopted.

(2) Virginia Power should offer contracts under Schedule 19 with terms extending up to four years, through December 31, 2002.

(3) Since there is nothing further to come before the Commission, this case is hereby dismissed and the papers herein placed in the Commission's file for ended causes.